

Appl. No. 10/676,457

Amdt. Dated March 3, 2005

Reply to Office Action of December 6, 2004

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the above-identified application:

Claims 1-10 (canceled).

Claim 11 (currently amended): A valve assembly, comprising:

a valve body having at least a fluid inlet, and a fluid outlet;

a valve element disposed at least partially within the valve body, the valve element having a flow passage extending therethrough and moveable between (i) an open position, in which the valve body fluid inlet is in fluid communication with the valve body fluid outlet, and (ii) a closed position, in which the valve body fluid inlet is not in fluid communication with the valve body fluid outlet;

an actuator assembly coupled to the valve element, the actuator assembly adapted to receive one or more position control signals and operable, in response thereto, to selectively move the valve element between the open and closed positions;

an engagement structure coupled to the valve element and moveable therewith, the engagement structure including at least a first engagement surface and a second engagement surface; and

a single, unitary stop structure fixedly coupled to the actuator assembly, the stop structure including (i) a first engagement surface configured to engage the engagement structure first surface when the valve is in the open position and (ii) a second engagement surface configured to engage the engagement structure second surface when the valve is in the closed position.

Claim 12 (original): The valve of Claim 11, wherein:

the actuator assembly comprises a housing; and

the stop structure is machined into the actuator assembly housing.

Appl. No. 10/676,457

Amdt. Dated March 3, 2005

Reply to Office Action of December 6, 2004

Claim 13 (original): The valve assembly of Claim 11, wherein the engagement structure is machined into the valve element.

Claim 14 (currently amended): The valve assembly of Claim 11, wherein the valve body includes an opening substantially transverse to the flow passage, the opening adapted to receive at least a portion of the actuator assembly therein, and wherein the actuator assembly comprises:

a housing having a valve interface section, the valve interface section extending into the valve via the valve body opening; and

an actuator element output shaft disposed within the housing and adapted to respond to the position control signals,

wherein the stop structure is coupled to the actuator assembly housing valve interface section.

Claim 15 (original): The valve assembly of Claim 14, wherein the stop structure is machined into the actuator assembly housing valve interface section.

Claim 16 (currently amended): The valve assembly of Claim 11, wherein:

the valve element includes an interface shaft;

the actuator assembly is coupled to the valve element via the interface shaft; and

the engagement structure is coupled to the valve element proximate the interface shaft.

Claim 17 (currently amended): The valve assembly of Claim 11, wherein:

the valve element includes at least a top surface, ~~a bottom surface, and an outer surface;~~ and

the engagement structure is coupled to the valve element top surface.

Appl. No. 10/676,457  
Amdt. Dated March 3, 2005  
Reply to Office Action of December 6, 2004

Claim 18 (original): The valve assembly of Claim 17, wherein the first and second engagement surfaces are disposed substantially perpendicular to the valve element top surface.

Claim 19 (canceled).

Claim 20 (currently amended): A valve assembly, comprising:

a valve body having at least a fluid inlet, and a fluid outlet;  
a valve element disposed at least partially within the valve body and moveable between (i) an open position, in which the valve body fluid inlet is in fluid communication with the valve body fluid outlet, and (ii) a closed position, in which the valve body fluid inlet is not in fluid communication with the valve body fluid outlet;

an actuator assembly coupled to the valve element, the actuator assembly adapted to receive one or more position control signals and operable, in response thereto, to selectively move the valve element between the open and closed positions;

an engagement structure integrally formed as part of the valve element, the engagement structure including at least a first engagement surface and a second engagement surface; and

a single, unitary stop structure integrally formed as part of the actuator assembly, the stop structure including (i) a first engagement surface configured to engage the engagement structure first surface when the valve is in the open position and (ii) a second engagement surface configured to engage the engagement structure second surface when the valve is in the closed position.